



Department of Homeland Security

Assessment Plan

Responder Assessment and Validation
of User Equipment (RAVUE)

Non-Motorized Extrication Devices

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1. RAVUE PURPOSE

The Responder Assessment and Validation of User Equipment (RAVUE) program is executed by the Center for Domestic Preparedness (CDP) in support of the System Assessment and Validation for Emergency Responders (SAVER) program under the supervision of the Office for Domestic Preparedness (ODP). RAVUE and SAVER are nationally focused programs designed to provide both immediate and long term contributions to Federal, State, and Local Responders by providing "user-focused" information on weapons of mass destruction (WMD) response capabilities. Long term goals will include assisting equipment and decision support developers in refining or improving Homeland Security capabilities, based upon Responder feedback on currently fielded WMD protection equipment and procedures.

2. ASSESSMENT PLAN OBJECTIVE

The purpose of this plan is to outline actions and activities necessary to accomplish the user assessment of non-motorized extrication equipment. Non-motorized extrication devices are devices that would be used without motorized assistance in a Weapons of Mass Destruction (WMD) event by emergency responders to transport victims from a contaminated environment to a decontamination point in a controlled access area.

Non-motorized extrication equipment will be the type of equipment used in the Center for Domestic Preparedness (CDP) assessment and validation process of the RAVUE program. The scenarios developed for this plan will be based upon standardized WMD vignettes. A project schedule for this assessment has been developed indicating that the assessment will begin on June 23, 2004 and completed on June 25, 2004, contingent upon the rapid procurement of equipment to be evaluated.

To determine the evaluation criteria for the equipment, an expert Responder Focus Group met on April 7, 2004. This Focus Group characterized extrication operations as "ending when the non-ambulatory victim is removed from the hot zone" during this meeting. This plan establishes the scenario, the types of environments to be used in this evaluation, and the assessment conditions consistent with this Focus Group's recommendations.

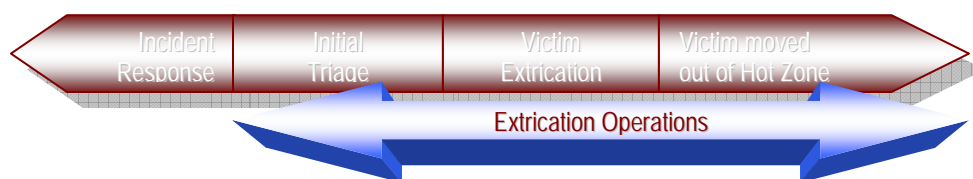


Figure 2.1 WMD Extrication Scenario Timeline

NOTE: Extrication operations may also employ extrication aids such as radios, portable loud hailers, etc., but in order to bound the assessment scope, these aids will not be evaluated as part of this project.

3. EVALUATION CRITERIA

Based upon Focus Group discussions, the following evaluation measurements were recommended for evaluation of WMD response extrication equipment. These criteria are listed in order of significance, beginning with those judged to be of greatest importance. Principle evaluation criteria for the Extrication Devices Assessment will be high priority items, although information on other evaluation points will be included in the final report for information purposes. The Focus Group recommendations are as follows:

A. HIGHEST PRIORITY EVALUATION CRITERIA

Evaluation elements identified as high priority characteristics are:

- Ease of Use (Patient Packaging/Movement)
- Lightweight
- Portability
- Durability (Non-Reactive [*composed of materials resistant to decontaminants or hazardous materials*] Re-Usable/Multiple Extractions [*Same Event*])
- Multiple Environments (Vertical/Horizontal)
- Ease of Decontamination (Rinsable/In Hot Zone)

B. MEDIUM PRIORITY EVALUATION CRITERIA

Criteria identified as moderately important, but of lesser priority than the group above:

- Equipment Compatibility (Interaction with other types of equipment)
- Cost
- Easy to Assemble (Color coded)
- Storage

C. LOW PRIORITY EVALUATION CRITERIA

Evaluation criteria identified as low priority items, which is information that might be a marginal utility in making local procurement decisions:

- Inter-agency Compatibility
- Sizability (Infant/Adult)
- Simple/Clear Instructions or Diagram (International)
- Recoverable
- Disposable

4. ITEMS TO BE ASSESSED

Several methods were used for the selection of the extrication equipment. These methods included, but were not limited to, extensive internet research and response equipment catalogs as well as other literature. Also, a Sources Sought Notice was posted on the Federal Business Opportunity website with a thirty day suspense. Additionally, letters were sent to twenty-six vendors to inquire about extrication devices they are familiar with for the RAVUE extrication devices assessment.

Based on the devices nominated and the down select method described in the *Market Survey for Responder/ Validation of User Equipment (RAVUE) – Extrication Devices* dated May 12, 2004, the CDP determined that the candidate devices fell within three extrication categories. Those categories are carry devices, drag devices, and an extrication chair. Two vendors had nominated more than one device, but in order to keep the number of devices manageable and to allow all vendors to be represented, the decision was made to choose one device from each manufacturer which represented their top-of-the-line product. The table below lists the manufacturers and products selected for the RAVUE extrication devices assessment.

Table 4.1. Selected Extrication Devices

Company	Model
Activeaid, Inc.	#40B4C.I.D. Spineguard®
Arizona Industries for the Blind	Decontaminable Folding Pole Litter
Hartwell Medical Corporation	CombiCarrier®
Henley Board, Inc.	Henley Spinal Immobilization Device HB 1010
LifeSlider, Inc.	LS100 LifeSlider
Rapid Deployment Products, Inc.	Pro-Lite Spineboard® (716)
Red Sled, Inc.	RED SLED
Skedco, Inc.	HMD Sked®
Stryker Medical	Model 6253 Evacuation Chair

5. ASSESSMENT PROCEDURES

Participants will be selected on geographic considerations and responder disciplines. The desired qualifications are responders at the technician and operation level from Fire Service, Law Enforcement, Emergency Medical Services (EMS), Search and Rescue, and Emergency Management disciplines representing large, medium, and small communities across the country.

The twelve responders selected will be grouped into three teams of four, and will remain with the same team throughout the assessment. The Evaluator teams will be extricating non-ambulatory casualties from first and second floor locations and move them to the decontamination point, located approximately 70 yards from the structure. At the decontamination point, the victims will be processed and passed to

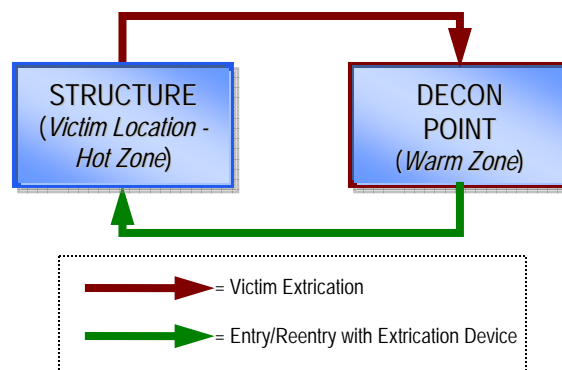


Figure 5.1 Extrication Operations Flow

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the decontamination team (simulated). The Evaluator teams will be taking the same extrication device and returning to the incident site to extricate the next casualty.

Three assessment segments will be conducted at each of the three lanes enumerated on page 7. During each segment, a different extrication device will be used for three non-ambulatory victims. After extricating the third victim in the assessment segment, the Evaluator team will temporarily remove their Level A PPE, stand down, rehydrate (drink water to replenish fluids), and undergo a debriefing.

Following a one-hour rest and recovery period, Evaluators will initiate a second and third extrication vignette using different extrication assessment devices. These same devices will be used in each of the assessment lanes described in Section 5.D.

During the three assessment days, nine non-ambulatory victims will be extricated using each extrication device variant.

If there is any confusion or failure on the part of the Evaluators to follow the assessment instructions or the manufacturer's instructions, the assessment segment will be completed and conducted again after the responders have rested and been appropriately briefed.

Each scenario room will be configured as they are set up for CDP Hazardous Materials training. Between assessment segments, the furniture in each room will be returned to its original position. No attempt will be made to place the furniture in such a manner as to give an advantage or disadvantage to a particular product.

A. TACTICAL SITUATION

A low-order bomb with an organophosphate component has been detonated in the lane locations. The incident scene has now been secured with a perimeter approximately 300 yards around the incident site. A hot zone has been established within the exclusion area at a distance of approximately 70 yards from the victim's location with a decontamination point at the edge of the hot zone.

Several fatalities have been identified and the local HAZMAT response team has determined that only a slight potential for liquid contamination exists within the hot zone. As a result of the information gathered, the Incident Commander has coordinated with the Public Health Officer and other EMA authorities and has determined that a toxic hazard may still exist within the hot zone, especially on victims near the release point.

Triage has been performed and ambulatory victims have been moved to and through decontamination. Twenty-seven non-ambulatory victims have been identified for rapid

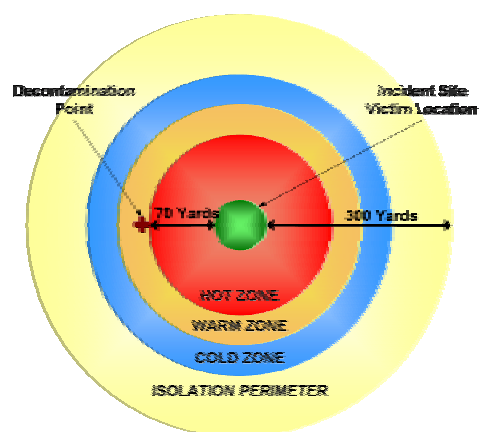


Figure 5.2 Isolation Perimeter

movement from their locations to the decontamination area. Nine have been coded Red (requiring immediate treatment to prevent more serious injury or death) and the remainder are coded Yellow (serious injury; non-life-threatening). Victims have been fitted with escape masks and other injuries have been stabilized to permit extrication.

B. ASSESSMENT SCENARIO

Due to the condition of the three Red victims, time does not permit Responders to await additional equipment or personnel. Therefore, “first-on-the-scene” personnel are required to begin extrication using the equipment on their vehicles. As additional extrication devices and equipment arrive at the scene, that equipment will be provided to the responders working in the hot zone.

Because an investigation of the WMD incident will be on-going, and the extent of the hazard has not been fully characterized, the Incident Commander directs Level A protection to be worn in the hot zone.

1. Scenario

The scenario involves extricating immobile, unconscious individuals, simulated by mannequins weighing approximately 165 lbs, from first floor rooms accessed by a standard door at least 36 inches wide. The room will contain representative furniture of dimensions and weight that could be found in office, commercial, or government building settings. Detailed photographs of each room’s layout are included in the lanes description section beginning on page 8.

The assessment will begin and end at the hot zone. To begin an assessment, the four-man Evaluator Team will be briefed on the location of immobile victims who have been triaged. The Incident Commander has determined that waiting for additional medical assistance will place the victims at greater risks and that responders are to rapidly extricate victims to the decontamination point, located adjacent to the hot zone (See Figure 5.2).

The Data Recorder will identify the rooms where the victims are located. Once the responders have developed their plan of action, properly put on (donned) their Personal Protective Equipment (PPE), obtained their extrication device, configured it in the carrying mode recommended by the manufacturer, and signal they are ready, the Data Recorder will initiate a stop watch and the Evaluators will cross into the hot zone.

The Evaluators will walk to the designated room(s), open the unlocked door(s), and enter into the room(s). Because the time taken to locate, extricate, and move the victim to the decontamination area will be noted, a Data Recorder will be in the room(s) to ensure that time is not lost in locating the victim.

The Evaluators will configure the extrication device, place the victim within or onto the device, and secure the injured person in accordance with the manufacturer’s instructions. Once the Data Recorder determines that the Evaluators have followed the manufacturer’s

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instructions and have correctly loaded the victim onto the extrication device, the Evaluators will transport the patient to the decontamination point. The Evaluators will be required to negotiate the furniture in the room, exit the door, and return to the starting point without assistance.

The Data Recorder will stop the clock when the Evaluator team exits the hot zone with the third victim. The Data Recorder will then log the finish time on the data collection sheets.

C. ASSESSMENT ITERATIONS

To ensure objectivity, it is necessary that all devices be assessed by Evaluators under similar physical stress conditions. Nine devices will be evaluated by three four-man teams, thus providing three assessment iterations for each of the nine devices.

- Each device will be evaluated by rested, slightly fatigued, and fatigued response personnel.
- Responders will utilize and evaluate each device while in Level A PPE in the three stress levels described above.
- Each evaluated device will be used by Evaluators having extricated zero, three, and six victims prior to the particular assessment iteration.

The Assessment Matrix in Table 5.1 indicates the assignment of teams to the extrication devices and correlates the floor plan schematics showing the rooms and routes to be used in the assessment.

Table 5.1. Extrication Devices Assessment Matrix

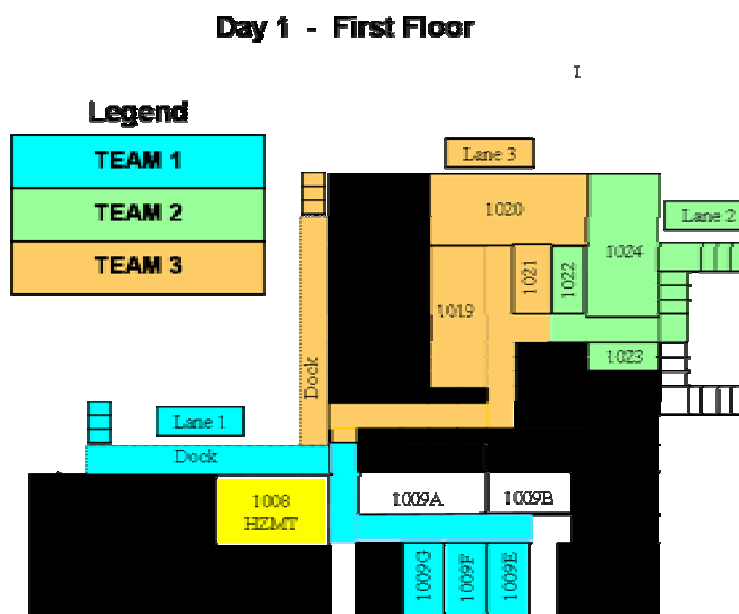
	Day 1			Day 2			Day 3		
	1 st Floor	2 nd Floor	1 st Floor	2 nd Floor	1 st Floor	2 nd Floor	2 nd Floor	2 nd Floor	2 nd Floor
	Team 1	Team 2	Team 3	Team 1	Team 2	Team 3	Team 1	Team 2	Team 3
	Lane 1	Lane 2	Lane 3	Lane 2	Lane 4	Lane 5	Lane 5	Lane 6	Lane 2
Carry 1	x				x				x
Carry 2	x				x				x
Carry 3	x				x				x
Carry 4			x	x				x	
Carry 5			x	x				x	
Drag 1		x				x	x		
Drag 2		x				x	x		
Drag 3		x				x	x		
Chair			x	x				x	

D. RAVUE LANES

This section contains floor plan schematics of the Evaluator Team lanes during the RAVUE extrication devices assessment. Second floor extrications will be conducted from exits located on the east side of Building 61 at the CDP to a decontamination point located near the road. First floor extrications will be conducted using the rear loading dock on the north side of the building to a decontamination point near the CDP rear parking lot. PPE donning and doffing will be in Room 1008.

- On Day 1, Teams 1 and 3 will be performing first floor extrications as indicated in the blue and brown shaded locations, exiting from the loading dock area. Team 2 will be performing 2nd floor extrications as shown in green.
- On Day 2, Teams 1 and 3 will be performing 2nd floor extrications, again shown in blue and brown. Team 2 will perform 1st floor extrications.
- On Day 3, all teams will be performing 2nd floor extrications. Although both Teams 1 and 2 will be using the same stairwell on Day 3, Data Recorders will ensure that groups do not inhibit movement into or extrication from the entering or exiting.

1. Assessment Day 1 – Extrication Device Lanes



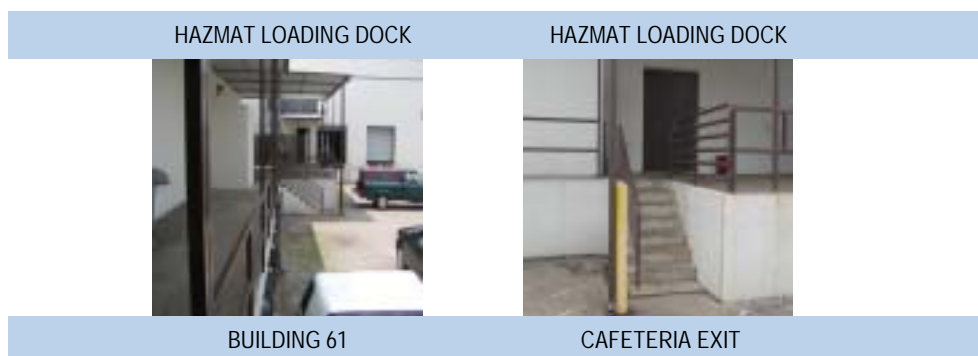
a. Lane 1 - Team 1 – Carry Devices 1, 2, and 3

Lane 1 consists of three rooms in Building 61 in the CDP Hazardous Materials training area. These rooms are set up in office and classroom settings with office furnishings as shown in the pictures on the following page.

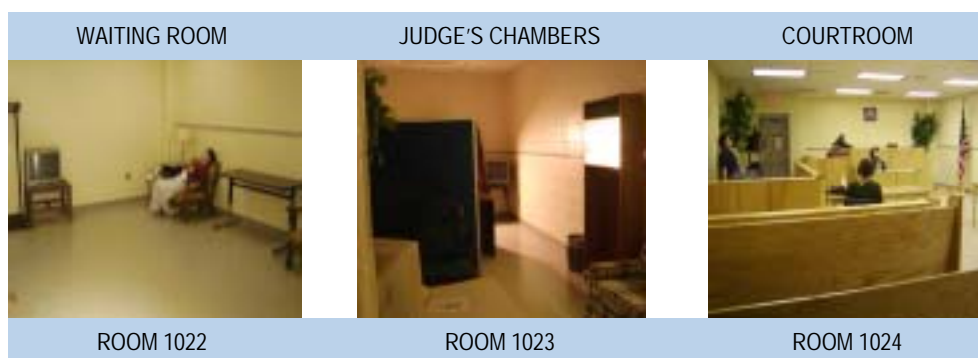
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In Lane 1, Evaluators will extricate one victim from each room and proceed through the hallway and exit the building via the loading dock. The Evaluators will then either carry the victim down a short set of stairs or slide the victim strapped to the device from the 4' high loading dock.



Lane 2 will utilize another three rooms in Building 61, also in the CDP Hazardous Materials training area. These rooms will be configured as a waiting room, judge's chambers and courtroom as shown in the pictures below.

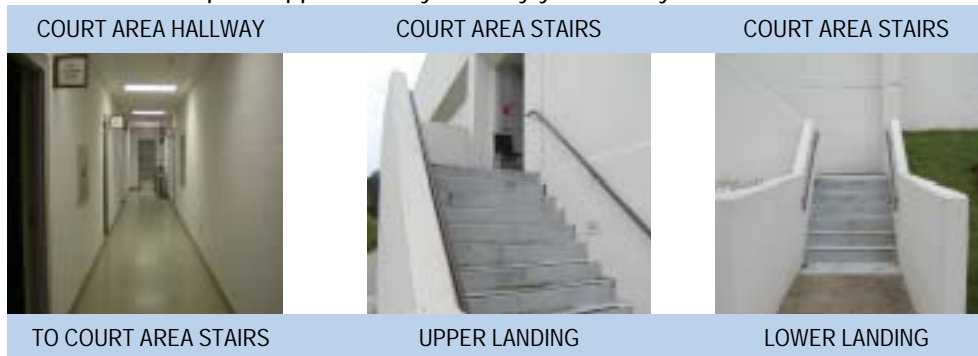


b. Lane 2 – Team 2 – Drag Devices 1, 2, and 3

In Lane 2, Evaluators will extricate one victim from each room. Teams will then proceed from the building and down the fifteen steps shown in the photographs on the

RAVUE Non-Motorized Extrication Devices Assessment Plan

following page. Upon reaching the ground, the group will move the victim to the decontamination point approximately seventy yards away.



c. Lane 3 - Team 3 – Carry Devices 4, 5, and Chair

Lane 3 will be a first floor extrication from a cafeteria area, a dining room, and a clinic room, shown in the pictures below. This lane will utilize three rooms in Building 61 in the CDP HAZMAT HOT Training area. These rooms will have numerous non-viable victims.

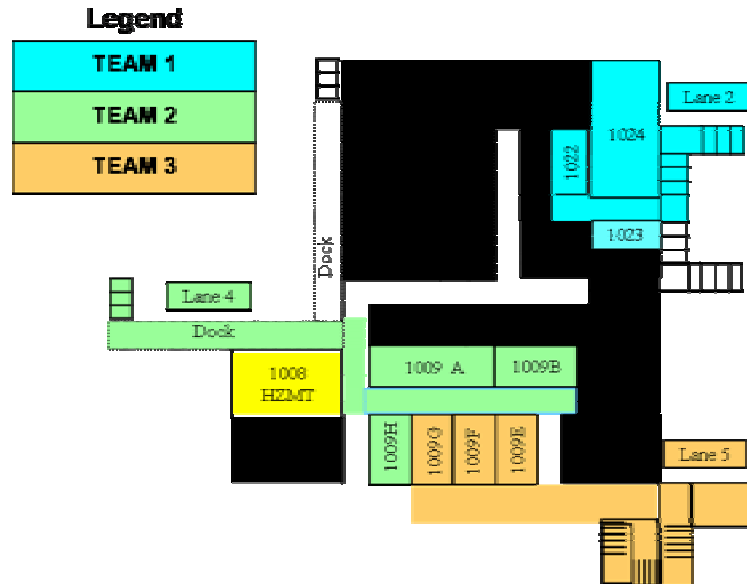


In Lane 3, Evaluators will extricate one victim from each room to the loading dock and either carry the victim down a short set of stairs or slide the victim strapped to the device from the 4' high loading dock.



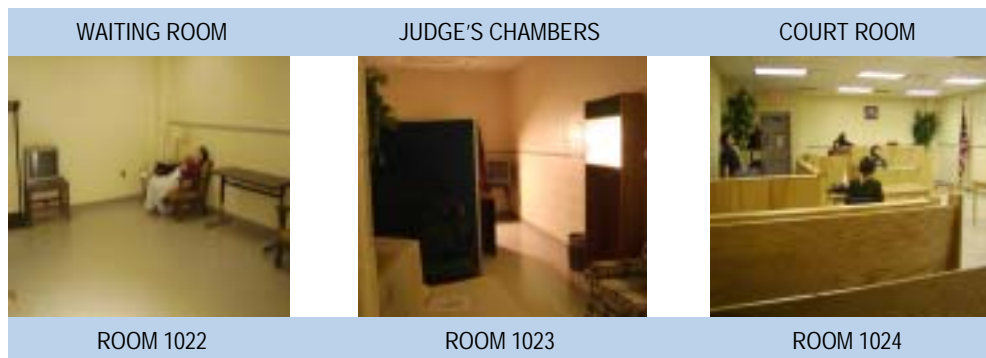
2. Assessment Day 2 - Extrication Device Lanes

Day 2 - First Floor



a. Lane 2 - Team 1 – Carry Devices 4, 5, and Chair

Lane 2 again will utilize three rooms in Building 61, also in the CDP HAZMAT training area. These rooms will be set up as a waiting room, judge's chambers, and court room as shown in the pictures below.



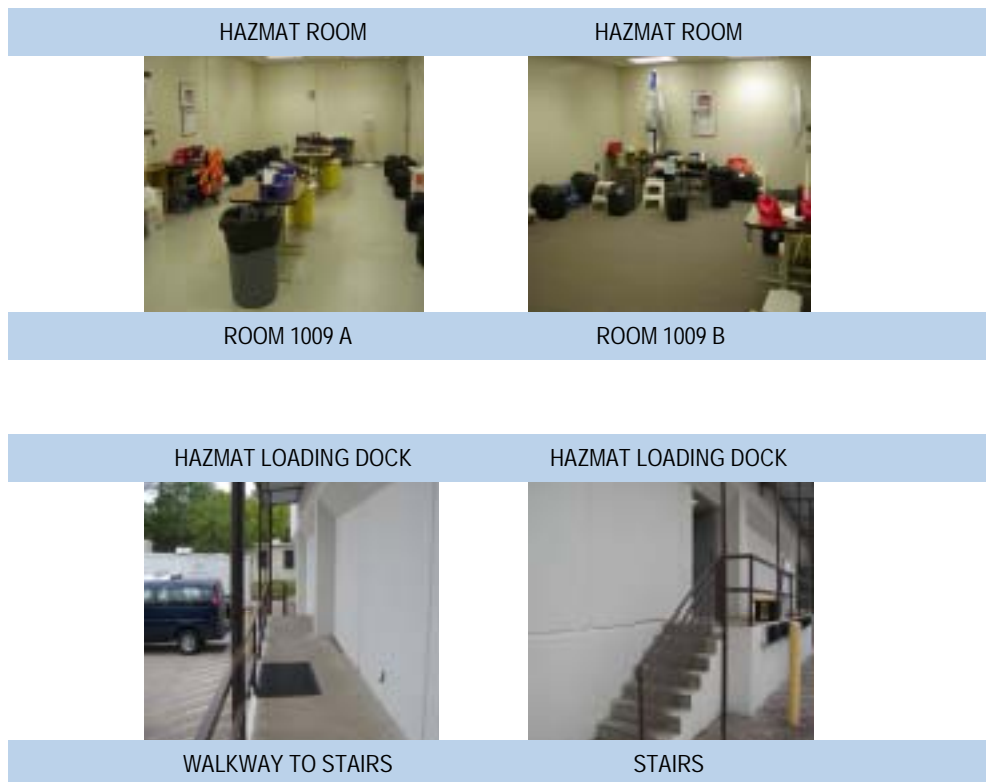
In Lane 2, Evaluators will extricate one viable victim from each room. The teams will then exit the building and down the fifteen steps shown in the following photographs. Upon reaching the ground, the group will extricate the victim to the decontamination point approximately seventy yards away.

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b. Lane 4 - Team 2 – Carry Devices 1, 2, and 3

Lane 4 will consist of rooms in the HAZMAT Training area. However, Lane 4 will incorporate the loading dock previously used in Lane 3. Two extrication victims will be located in the HAZMAT instructional rooms and will be carried or dragged out the exit shown below to the assigned decontamination point.

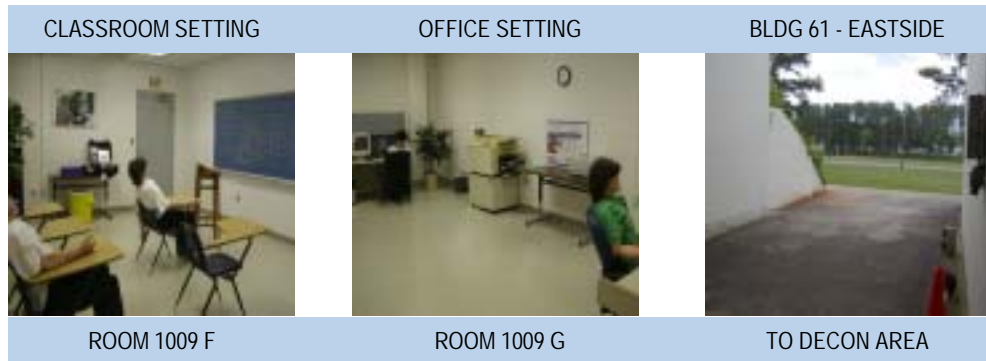


c. Lane 5 - Team 3 – Drag Devices 1, 2, and 3

Lane 5 will consist of rooms in Building 61 in the CDP HAZMAT training area. These are the same rooms as used in Lane 1, however the exit will be down a wide set of

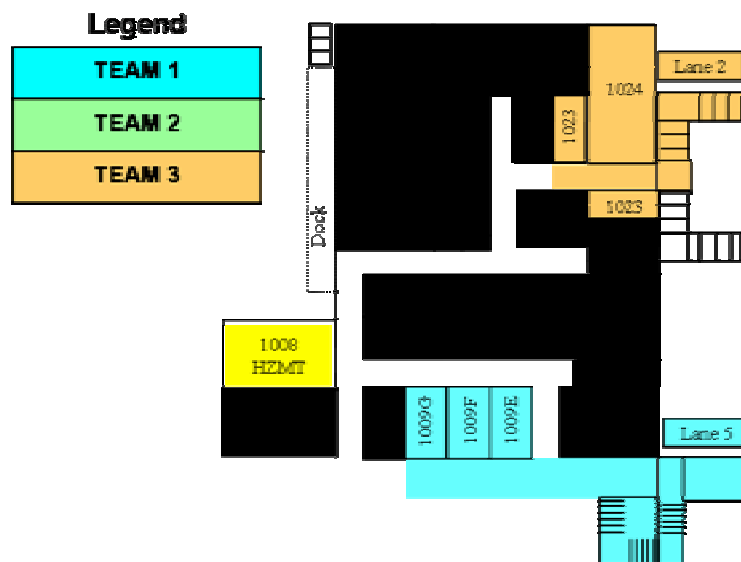
RAVUE Non-Motorized Extrication Devices Assessment Plan

interior stairs leading to the east side of Building 61. These rooms will be configured in office and classroom settings with office furnishings as shown in the pictures below. In Lane 5, Evaluators will extricate one victim from each room.



3. Assessment Day 3 - Extrication Device Lanes

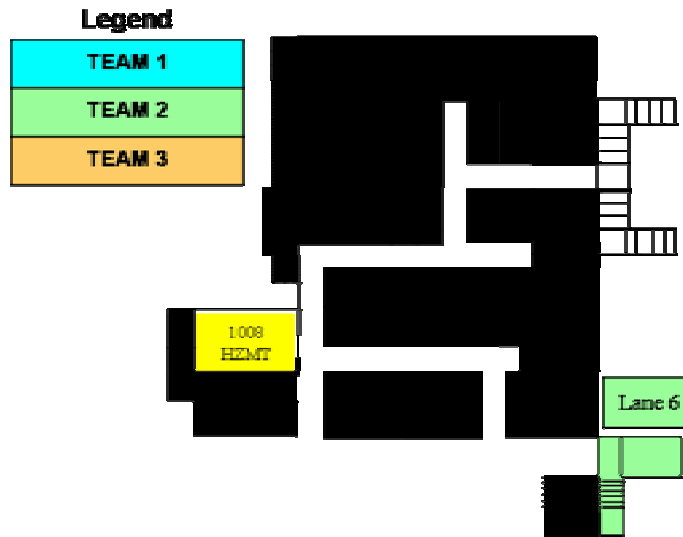
Day 3 - First Floor Teams 1 & 3



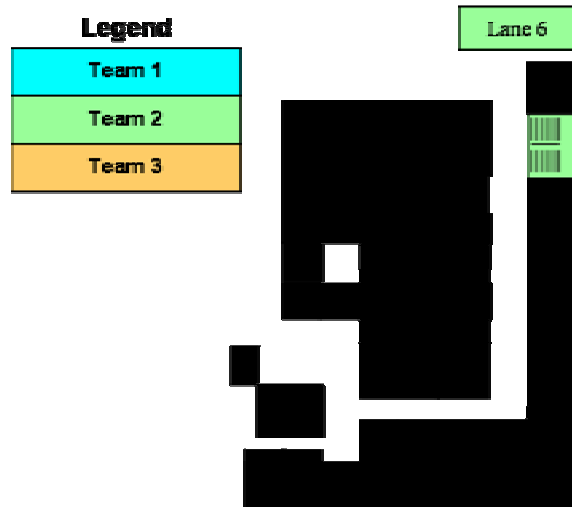
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The following two diagrams indicate the areas to be used by Group 2, starting on the second floor and descending to the ground level.

Day 3 - First Floor Team 2



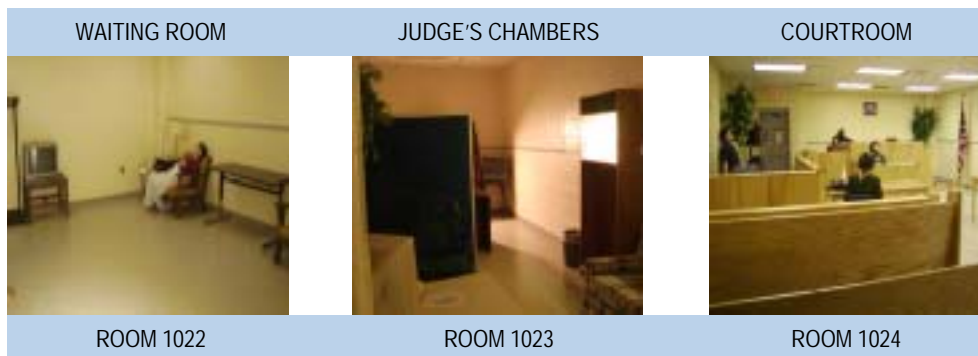
Day 3 - Second Floor Team 2



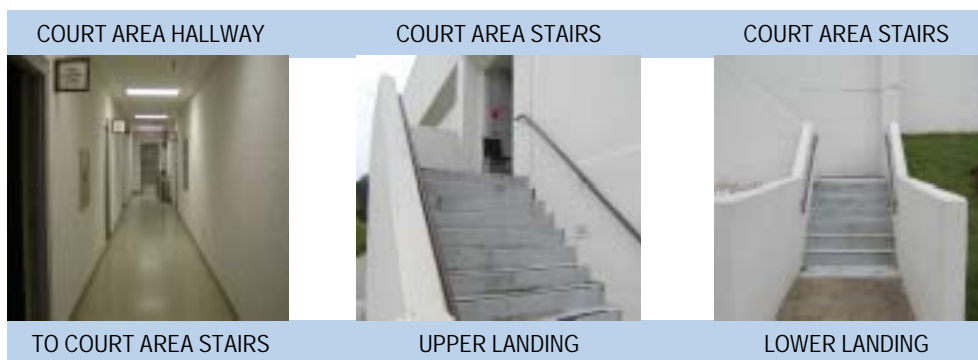
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a. Lane 2 - Team 3 – Carry Devices 1, 2, and 3

Lane 2 will again utilize rooms in Building 61 and the exterior stairway, as on previous assessment days. These rooms will be set up as a waiting room, a court room, and the judge's chambers as shown in the pictures below.



In Lane 2, Evaluators will extricate one victim from each room. The teams will then exit the building and down the fifteen steps shown in the photographs below. Upon reaching the ground, the group will carry the victim to the decontamination point approximately seventy yards away.



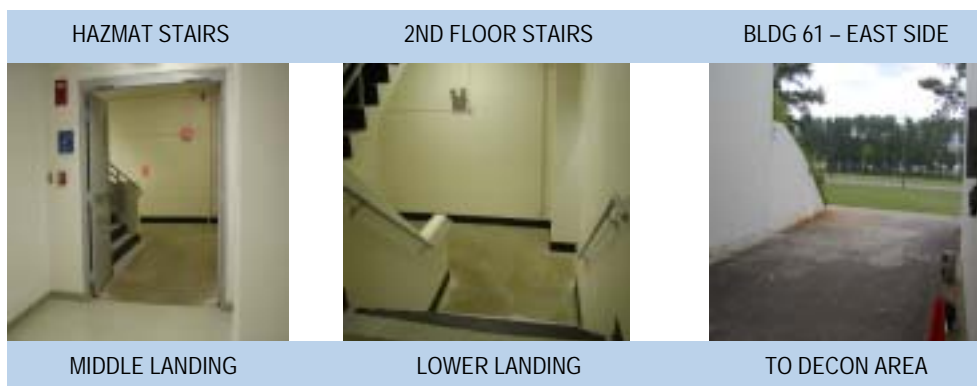
b. Lane 5 - Team 1 – Drag Devices 1, 2, and 3

Lane 5 will utilize rooms set up in office and classroom settings with office furnishings as shown in the following pictures. The exit route is down a wide set of interior stairs leading to the east side of Building 61. In Lane 5, Evaluators will extricate one victim from each room.



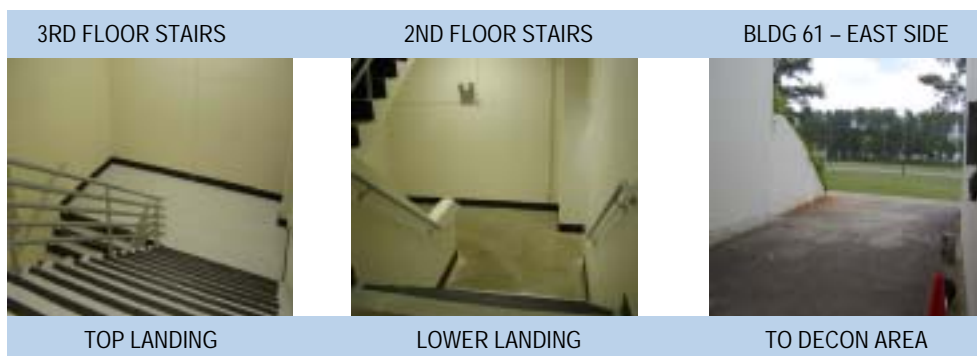
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Because Groups 1 and 2 are to use the same stairwell to extricate victims, there may be instances during which a group will need to momentarily wait for the other to enter or exit the doorway while moving a victim past the other group.



c. Lane 6 - Team 2 – Carry Devices 4, 5, and Chair

Lane 6 will use the interior stairwell on the east side of Building 61 with one mannequin placed approximately below the upper most landing on the second floor. The other two mannequins will be placed on the third landing above the ground floor. All extrications will be made to the decontamination point located near the road in the background of the picture labeled “Bldg 61 – East Side Decon Area.” During the descent, Evaluators will move the victim down thirty-three stairs to reach the ground level.



6. EVALUATOR FAMILIARIZATION OF DEVICES



The photographs above represent samples of the devices to be evaluated in the RAVUE extrication devices assessment. These devices generally fall into three categories:

- Carry Devices/Backboards
- Drag Devices
- Extrication Chair

Large jurisdictions typically purchase emergency response equipment in considerable quantities warranting special attention by the device manufacturers. This often results in manufacturers providing product demonstrations, conducting user training, and ensuring that all of the customers' questions are addressed. Smaller jurisdictions may not receive this personalized attention, relying instead on vendor shows, Internet, or "word-of-mouth" information from their local safety products retailers. The intent of the SAVER/RAVUE program is to procure and assess commercially available equipment in a manner similar to what a typical jurisdiction might experience, using a local retail vendor and relying on the "instructions in the box" or on the Internet. To replicate these

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conditions, extrication device Evaluators will be provided the product information readily available to procurement officials and that which accompanies the purchased products.

In preparing for the assessment, Evaluators will be familiarized with each of the evaluated items prior to the first assessment day. For example, Evaluators will be provided instruction materials on each device and will be afforded the opportunity to practice using the devices prior to testing. This familiarization opportunity will be conducted in an environment similar to that used during the assessment, but not at the assessment location or under precisely identical conditions. Again, CDP instructors will not provide training, coaching, or comments on the devices.

Manufacturer's instructional materials will be provided to the Evaluators in a classroom familiarization session on Tuesday morning, June 22, 2004. These materials will include device instructions, promotional brochures, VHS demonstration tapes, and DVD demonstration videos. The Evaluators will review these materials and discuss their experiences and observations with the group. To avoid biasing the Evaluators, no effort will be made to provide CDP instruction on the devices. However, if the Evaluators have questions on the devices, the Test and Evaluation Branch will attempt to obtain answers to Evaluator questions, principally by researching manufacturers' web-sites.

Tuesday afternoon, Evaluators will be taken to the CDP Library, where the packaged RAVUE equipment will be provided to them along with an "as long as needed" opportunity to open, configure, and practice using the devices. During this "hands-on" session, Evaluators will have access to the literature previously provided in the classroom familiarization as well as materials that are contained in the original shipping boxes.

Once familiarization of the devices in the Library is complete, the Evaluators will return to the classroom to again review the available literature, and to review the equipment demonstration tapes and DVDs. Upon completing the "self-teaching" seminar that afternoon, Evaluators will be offered the opportunity to review the literature each morning during the daily mission briefing as well as during the segment debriefs.

A. Rotation of Devices Among the Lanes

Each Evaluator group will conduct nine extrications from first floor locations, characterized by no more than six stair steps leading out of the building. Additionally, each group will perform eighteen additional extrications from second floor locations with over fifteen stair steps leading from the building. This should result in each device being used for three extrications per day, for a total of nine total extrications per device.

In conducting the assessments, each Evaluator group will clothe themselves in their PPE and then move to the hot zone to obtain their extrication device. Therefore, the routine leading to the first responder entry into the hot zone may vary slightly.

Two devices from each manufacturer will be provided during an assessment segment for Evaluator Team use. The exception to this is the extrication chair, of which only one is available. To begin an assessment of a product, the two devices will be placed at the start location of the hot zone. The Evaluator Team may choose to take both items into the hot zone

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on the first entry unless they prefer to take only one device in at a time. However, all team members will make at least two entries in an assessment segment, even if only two members are required to perform the actual extrication using a specific device.

The following table illustrates the extrication equipment, Evaluator groups, and the lanes that will be used during the assessment segments. It should be noted that a concerted effort will be made to evaluate all devices by rested, slightly fatigued, and fatigued personnel.

Table 6.1. Equipment Distribution of Lanes

Day 1 - Equipment Distribution			
Order	Team 1 – Lane 1	Team 2 – Lane 2	Team 3 – Lane 3
1	Spineguard®	Life Slider	Henley Spine Board
2	Folding Pole Litter	Red Sled	Extrication Chair
3	CombiCarrier®	SKED®	Pro-Lite Spineboard®
Day 2 - Equipment Distribution			
Order	Team 1 – Lane 2	Team 2 – Lane 4	Team 3 – Lane 5
1	Extrication Chair	CombiCarrier®	SKED®
2	Pro-Lite Spineboard®	Spineguard®	Life Slider
3	Henley Spine Board	Folding Pole Litter	Red Sled
Day 3 - Equipment Distribution			
Order	Team 1 – Lane 5	Team 2 – Lane 6	Team 3 – Lane 3
1	Red Sled	Pro-Lite Spineboard®	Folding Pole Litter
2	SKED®	Extrication Chair	CombiCarrier®
3	Life Slider	Henley Spine Board	Spineguard®

B. Debriefing Process

After an assessment segment consisting of three extrications using a single device, the Evaluators will return to room 1008, remove their PPE and proceed to the Responder dining area for the segment debrief. This will begin with Evaluators individually filling out the Debriefing Worksheet contained in the Assessment Plan.

Evaluators will be permitted to interact and discuss their observations during this individual scoring of the devices, but each Evaluator will formulate their impressions and comments individually. Upon completion of the individual debriefing worksheets, the Evaluator group will discuss the assessment and the Data Recorders will record the collective ratings and comments on the device.

The debriefing process is expected to require approximately one hour. If an Evaluator chooses to, he may change his debriefing worksheet, ratings, or comments during the groups' discussions. At the conclusion of each segment's debriefings, score sheets will be collected.

After the last Evaluator group debriefing on Friday, Evaluators will be given a final opportunity to change any assessment ratings or comments that they have previously submitted. This is

intended to convey to the Evaluators that the comments are their own and that they have ownership of them.

7. ASSESSMENT SUPPORT REQUIREMENTS

A. Personnel Requirements

The following personnel support is necessary to conduct the RAVUE extrication devices assessment:

1. Responder Evaluators

Because of the type of response activity to be performed, response agencies located across the United States will be asked to nominate equipment Evaluators meeting the following requirements:

- a. Certified or accredited to perform duties while wearing Level A PPE.
- b. Completed a physical examination by a licensed physician within the last twelve months indicating that the individual is fully capable of performing Evaluator duties including the wearing of an air purifying respirator.
- c. Physically fit.
- d. Have three or more years of experience working in Level A PPE.
- e. Willing to perform strenuous extrication operations in a non-hazardous environment.
- f. Willing to sign a No Conflict of Interest Statement.

The assessment Evaluators will be solicited from various parts of the United States. The disciplines sought include Fire, HAZMAT, Search & Rescue, Law Enforcement, and Paramedics who meet the requirements described above. The candidate jurisdictions will be identified using the Center for Domestic Preparedness Student Services database.

Supervisors within these jurisdictions are to be contacted by letter and asked to make an evaluator nomination. Nominated Evaluators will then be selected based upon their level of experience using Level A PPE equipment within their disciplines and jurisdictions.

The twelve Evaluators selected will provide observations and impressions on nine extrication devices used in the assessment, addressing evaluation criteria developed by a Responder Focus Group. This assessment will be an assessment of carry, drag, and chair type extrication devices that Emergency Responders could use when responding to a WMD incident.

2. Data Recorders

Data Recorders will be selected from the CDP training staff, possessing the skills and experience similar to the Evaluators in utilizing the type of equipment being evaluated. Two Data Recorders will observe Evaluator activities on each test lane.

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Data Recorders will familiarize the Evaluators to the site by conducting a visual orientation of the lanes prior to the assessment to assist in organizing the evaluator group as needed. For example, some devices might allow two evaluators to extricate a single victim, where another device requires four.

Data Recorders will accompany the Evaluators during extrication operations and will collect and record Evaluator comments and observations. Data Recorders will ensure that safety considerations are adhered to during the assessment and in rehydration and recovery of the Evaluators. Data Recorders will ensure that the Evaluator teams handle the mannequins as if they were actual victims so as not to skew the assessment progress. This involves properly placing the mannequin(s) with care on the device, placing the restraints on the chin versus around the neck; and extricating the mannequin(s) cautiously down the stairs rather than allowing gravity to advance the device down the stairs.

Immediately following each assessment segment, Data Recorders will assist the Evaluators with removing the Level A ensembles, and then conduct a debriefing at the back of the Responder Cafeteria in Building 61. At that time Evaluator assessment observations will be recorded and comments collected using the Evaluator Debriefing Worksheets provided to the Data Recorders.

Data Recorders will submit the completed worksheets to the Assessment Director at the end of each test day. The Assessment Director will review the information and identify any additional data points that may be required as a result of Evaluator comments. Any evaluation adjustments or additional information provided will be documented in the Data Recorder's/ Assessment Director's daily situation report (but not necessarily in the formal Assessment Report.)

3. Testing and Evaluation Office

The CDP Test & Evaluation Chief will serve as the RAVUE Extrication Device Assessment Director. The Director is responsible for preparation of the RAVUE assessment plan, requesting procurement of the equipment, managing preparations and coordination, obtaining Evaluators and Data Recorders, conducting the extrication devices assessment, and scoring. Following the assessment, the Director will be responsible for preparation and staffing of the RAVUE Extrication Devices Assessment Report. The assessment Director will supervise compliance with the Assessment Plan and the Scoring Methodology.

Programs Branch Assessment Facilitators will assist in the evaluation process. This will assist in the management of the Logistics personnel, the Data Recorders, and the Evaluators. They will coordinate with the Student Services Department to ensure all travel and housing arrangements for the Evaluators are finalized. The Facilitators will make personal contact with Evaluators regarding selection, certifications, or special travel coordination.

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The Assessment Planner will review the assessment process plans and will coordinate with the Training Department and Operations Manager. Consequently, the Planner will ensure the assessment equipment is in place each day and ready for use. The Planner will also facilitate the submission of daily situation activity reports.

4. Student Services

Using the database to identify responders who have attended courses at the CDP, the Student Services Department will provide a list of names, departments, and contact individuals to the Programs Branch for the selection of the Responder nominees.

Once the nominee selection has been made, a letter will be sent from the Programs Branch to the nominating agency advising them of the selected candidates.

Upon receipt of the nomination letters, the Student Services Department at the CDP will begin communications with the nominated Evaluators. Student Services will arrange the necessary travel for each Evaluator, and arrange lodging for the duration of the assessment week.

Transportation and lodging will be provided to the Evaluators as is provided to all CDP students.

5. Training Logistics Office

The Assessment Coordinator will oversee all logistics personnel and operations for the extrication devices assessment. The Assessment Coordinator will be responsible for ensuring that PPE is in the dress out area each morning, shuttle air bottles back to Logistics after each assessment segment, positioning equipment in the assessment lanes, providing bottled water at the outside decon points, and cleaning the equipment at the end of the assessment. Because it is predicted that some parts of this assessment will require alterations, the Coordinator must be flexible in meeting these requirements.

Approximately six temporary Logistics Facilitators will provide support in setting up the lanes, moving and staging the mannequins prior to each assessment segment, and any movement or placing of furniture that might be necessary. Additionally, they will position the Level A PPE and full air bottles at the beginning of each test day, as well as return the used bottles to Logistics for refilling. Level A suits and air purifying respirator face pieces will also require sanitization at the end of each test day. Should additional equipment be required for the conduct of the lanes assessment, the Data Recorders or the Assessment Director will request that the Logistics facilitators obtain the material and bring it to the designated location.

The Training Logistics Division will procure and provide test items to the RAVUE assessment. Following the assessment, the evaluated equipment may be transferred to the appropriate CDP training department.

6. CDP Safety Personnel (Training Safety)

The Extrication Devices Assessment Plan will be coordinated with the Training Safety Office and a walk through of the lanes conducted no later than June 18, 2004. Any safety issues requiring modification of the plan will be documented by the Safety Office and provided to the Assessment Director by June 21, 2004, so that they may be corrected and recorded as part of the RAVUE lessons learned. The Safety Office will provide a short safety briefing to the Evaluators and Data Recorders on Tuesday, June 22, 2004 in the RAVUE classroom and on each test day. Safety personnel will also monitor assessment operations. Unsafe acts will be corrected on the spot. Any accident, injury, or illness during the assessment will be recorded by the Data Recorders and will be reported to the Training Safety Office at the earliest opportunity.

7. Medical Screening

Evaluators nominated by their jurisdictions will be required to submit proof of a physician's medical examination within the last twelve months indicating their fitness to perform duties in Level A PPE or while wearing an air purifying respirator. These documents will be provided to the CDP Occupational Health Nurse for review. Should any Evaluator not provide this physician's statement or if the provided information indicates questionable fitness, the medical staff will follow-up with the individual or may refer the situation back to the Assessment Director for action.

8. EMS Support

During the assessment, medical screenings will be performed by the CDP EMS personnel in Building 61. Evaluators will undergo blood pressure screenings before and after wearing PPE each test day. Additionally, a blood pressure screen will be performed on Tuesday, June 22, 2004 as part of the RAVUE familiarization orientation and medical screening.

B. Facility Requirements

1. Assessment lanes consisting of vignette rooms, hallways, and stairwells in an office building setting (Building 61)
2. Classrooms - Tuesday through Friday (Building 61)
3. PPE dress-out room (Room 2008)

C. Evaluator Personal Protective Equipment

Equipment	Model/Part Number
1. DuPont® Kappler Responder Training Suit	#41555
2. Scott SCBA AV 200 Facepiece/mask	#804019-02
3. Scott 4500 PSI Airpack	#804848-1
4. 60-minute bottle	#804723-01
5. North Silver Shield Gloves	#4H-SSG/11
6. Sempermend Vinyl Gloves	#VP-104
7. North Butyl outer Gloves	#878-L
8. Tingley boots, Haz-Proof Work Brutes	#00046
9. Lakeland Cooling Vest	#0.00055

D. Ancillary Equipment (three sets/one per lane per day)

1. HAZMAT training course items

Items such as backboards, ice vests, silver shield gloves, latex gloves, straps, and duct tape, etc. normally used in conjunction with the CDP HAZMAT training course will be available for use during the assessment. A detailed list of these items is available at the CDP.

2. Mannequins

Life sized mannequins weighing approximately 165 lbs. will be used to simulate victims during the extrication assessments. A minimum of three mannequins are required in each of the three lanes. This will allow three extractions from each lane before mannequins must be repositioned in the vignette rooms to conduct the next assessment segment.

8. ASSESSMENT SCHEDULE

A. OVERVIEW

The extrication devices assessment will be conducted over a three day period beginning on June 23, 2004. Evaluators will follow the schedule indicated below:

- Monday: Travel to the CDP. Pick-up at the Atlanta Airport.
- Tuesday: Medical screening, assessment orientation, issuing PPE equipment, extrication equipment training, equipment experimentation.
- Wednesday – Friday: Equipment assessments on three lanes in the HAZMAT training area of Building 61 (one Evaluator group with four personnel at each lane). Evaluator observations will be recorded after each assessment segment. Three assessment segments will be conducted in each lane per assessment day. Evaluations will be conducted in Level A PPE.
- Friday afternoon – Evaluator groups review recorded comments from their evaluations and make changes or additional comments as necessary.
- Saturday – Depart for Atlanta Airport.

B. EVALUATOR DAILY SCHEDULES

The schedule below outlines the major activities during the RAVUE assessment week:

1. Monday: June 21, 2004

- 1700 Arrive CDP Lodging Area

2. Tuesday: June 22, 2004

- 0730 – 11:00 Orientation/Safety Briefing
- 1100 – 1200 Tour RAVUE Lanes
- 1300 – 1430 Assessment Equipment Familiarization & Training
- 1430 – 1530 Equipment Discussion
(Classroom 2045)

3. Wednesday: June 23, 2004

- 0800 – 0845 Orientation (Classroom 2045)
- 0900 – 0930 Level A PPE Dress-out (Room 1008)
- 0930 – 1545 Equipment Assessment
- 1600 – 1630 Daily Wrap-up(Classroom 2045)

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4. Thursday: June 24, 2004

- 0750 – 0810 Safety Briefing/ Mission Orientation (Classroom 2045)
- 0900 – 1100 Level A PPE Dress-out (Room 1008)
- 1100 – 1445 Equipment Assessment
- 1510 – 1545 Daily Wrap-up (Classroom 2045)

5. Friday: June 25, 2004

- 0750 – 0810 Safety Briefing/ Mission Orientation (Classroom 2045)
- 0830 – 0850 Level A PPE Dress-out (Room 1008)
- 0850 - 1430 Equipment Assessment
- 1440 – 1600 Assessment Wrap-up/Comment Review

6. Saturday: June 26, 2004

- 0615 - 0645 Departure

9. ASSESSMENT ANALYSIS

Final assessment evaluation and analysis will be performed by reviewing each individual evaluation criteria separately, and applying a weighted numerical value in accordance with the focus group's weighted criteria.

Assessment requirements will be refined based upon on-going planning. However, key requirements include facilities, Evaluator equipment, extrication assessment equipment, equipment expected to be on response vehicles at an incident scene, and logistics support to the operation.

10. ASSESSMENT PLAN APPROVAL

On June 18th, 2004, there will be a presentation of the RAVUE assessment proposal to the Department of Homeland Security, Center for Domestic Preparedness' Director of Training. At that time, there will be a full review of the planned assessment process with an opportunity to address questions or to receive additional guidance.

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GLOSSARY

assessment segment	Three victim extrications begin when the evaluators pick up the extrication device and take it into the building to extricate the victims. The segment ends when the third victim reaches the decontamination point.
carry device	Extrication devices upon which the victim is placed and then carried by the evaluators to the decontamination point at the edge of the hot zone. The carry devices to be evaluated included are: Spineguard®, Folding Pole Litter, CombiCarrier®, Henley Spinal Immobilization Device.
code red victims	Victims requiring immediate treatment to prevent more serious injury or death.
code yellow victims	Victims with serious injury; non-life threatening.
contamination	The unwanted transfer of material from another source to a person or a piece of physical evidence
cold zone	The control zone of a HAZMAT incident that contains the command post and other support functions as are deemed necessary to control the incident. This zone may also be referred to as the clean zone or the support zone.
Data Recorders	Responsible for recording observations on what happens in a particular place or among a particular group of participants. Also responsible for oversight and coordination of all aspects of data collection.
decontamination point	Point of decontamination of hazardous materials from victim(s) and/or extrication devices located on the edge of the hot zone.
doff	Remove personal protective clothing and equipment

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don	Put on personal protective clothing and equipment
drag type device	Extrication devices upon which the victim is placed and then drug (instead of carried) by the evaluators to the decontamination point. These devices include: LifeSlider, RED SLED, HMD Sked®
Evaluators	Responders who provide observations and impressions on nine extrication devices used in the Assessment
evaluation criteria	Evaluation criteria recommended by a Responder Focus Group grouped into High Priority, Medium Priority, and Low Priority evaluation criteria.
"honest broker"	Technical advice to State and local Emergency Responders
hot zone	An area immediately surrounding a hazardous materials incident, which extends far enough to prevent adverse effects from hazardous materials releases to personnel outside the zone. This zone is also referred to as the "exclusion zone, red zone" and "restricted zone" in other documents
isolation perimeter	The designated crowd control line surrounding the Hazard Control Zones. The isolation perimeter is always the line between the general public and the Cold Zone.
Lanes	Scenario areas consisting of a grouping of adjacent rooms <u>and</u> an evacuation route leading back to the hot zone entrance/decontamination point.
lane start point	Location approximately 70 yards away from building where Evaluators receive the extrication device to be used in the assessment segment

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non-motorized extrication devices	Devices that were used without motorized assistance in a WMD event to transport victims from a contaminated environment to decontamination point in a controlled access area.
ODP	Office for Domestic Preparedness
PPE	Personal Protective Equipment
RAVUE	Responder Assessment and Validation of User Equipment
SAVER	System Assessment and Validation for Emergency Responders
Section 10.002	Section of the Federal Acquisition of the Federal Regulations that describe the Acquisition Regulation methodology for the conduct of Market Research
SSD	Systems Support Division within the ODP
warm zone	The area where personnel and equipment decontamination and hot zone support takes place. It includes control points for the access corridor and thus assists in reducing the spread of contamination. This is also referred to as the "decontamination," "contamination reduction," "yellow zone," "support zone" or "limited access zone" in other documents
WMD	A <i>weapons of mass destruction</i> is any device that is designed or intended to cause mass destruction and/or death

